



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,565	10/17/2003	Toshinori Takatsuka	04208.0191	8961

22852 7590 09/22/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

SHAPIRO, LEONID

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,565

Applicant(s)

TAKATSUKA ET AL.

Examiner

Leonid Shapiro

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 13, 14, 18, 21-25, 27-29 and 33 is/are rejected.
- 7) ☒ Claim(s) 7, 9-12, 15-17, 19, 20, 26, 30-32, 34 and 35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-17-06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2,5-6,8,13-14,21-22,24-25,27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Arita et al. (US Patent no. 5,504,502).

As to claim 1, Arita et al. teaches a pointing device (See Col. 1, Lines 13-15) comprising:

a printed circuit board (See Fig. 1,item 17);

a plurality of magnetic sensors placed on said printed circuit board (See Fig. 1,items 14,14');

an elastic member mounted on said printed circuit board to constitute a hollow for enabling sway in any desired direction (See Fig. 1,items 11-13, Col. 4, Lines 37-62);

a rigid pushing member placed on said elastic member (See Fig. 3,item 10b, Col. 4, Lines 63-67);

and

a magnet mounted on said elastic member, wherein said plurality of magnetic sensors detect magnetic flux density changes caused by a sway of said magnet due to elastic deformation of said elastic member (See Fig. 1,items 11-13,18, Col. 4, Lines 37-62).

As to claim 21, Arita et al. teaches a pointing device (See Col. 1, Lines 13-15) comprising:

- a printed circuit board (See Fig. 18,item 17);
- a plurality of magnetic sensors placed on said printed circuit board (See Fig. 18,items 14,14');
- an elastic member mounted on said printed circuit board to constitute a hollow for enabling sway in any desired direction (See Fig. 1,items 13c-13e, Col. 8, Lines 21-49);
- a rigid pushing member placed on said elastic member to constitute said hollow together with said elastic member (See Fig. 18,items 10, 10d, Col. 8, Lines 21-49) and a magnet placed on said pushing member (See Fig. 18, items 10,18), wherein said plurality of magnetic sensors detect magnetic flux density changes caused by a sway of said magnet due to elastic deformation of said elastic member (See Fig. 1,items 13e,14,14',18, Col. 8, Lines 21-60).

As to claim 2, Arita et al. teaches pushing member has a top whose area is greater than an area of said magnet (See Fig 1,item 18 and Fig. 3A, items 10).

As to claim 22, Arita et al. teaches pushing member has a top whose area is greater than an area of said magnet (See Fig 18, 3A, items 10,18).

As to claims 5, 24 Arita et al. teaches magnetic sensors are placed symmetrically along X axis and Y axis on a plane, and said magnet is disposed at about a center of said magnetic sensors (See Figs. 9A-9B, items 18,28, Col. 6, Lines 1-5).

As to claims 6,8,25,27 Arita et al. teaches g a switch on an elastic member side surface of said printed circuit board (See Figs. 1,18, item 15, Col. 4, Lines 38-50).

As to claims 13,28, Arita et al. teaches that magnet displaceable in a direction perpendicular to said printer circuit board (See Fig. 1, items 17-18).

As to claims 14,29, Arita et al. teaches at least one bend that forms said hollow (See Fig. 1, item 12 and Fig. 18, item 13e).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al. in view of Hinata et al. (US Patent No. 5,179,460).

Arita et al. does not disclose elastic member consisting of silicone resin.

Hinata et al. teaches elastic layer consisting of silicone resin (See Fig.12, item 32, Col. 5, Lines 58-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Hinata et al. into Arita et al. system in order to use elasticity of silicone resin (See Col. 5, Lines 64-66 in the Hinata et al. reference).

Art Unit: 2629

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al. in view of Ogawa (US Patent No. 5,565,632).

Arita et al. does not disclose magnet and elastic member are replaced by rubber magnet.

Ogawa teaches elastic material formed of ferrite rubber into which a magnetic material is dispersed (See Col. 6, Lines 35-36).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Ogawa into Arita et al. system in order to simplify manufacturing process.

6. Claims 18,33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al. in view of Endo et al. (US Patent No. 6,670,946 B2).

Arita et al. does not disclose a second elastic member mounted on an edge of said elastic member or on said pushing member; a manipulation member mounted on said second elastic member; and a second magnet mounted on said second elastic member or said manipulation member.

Endo et al. teaches a second magnet (See Fig. 5, items 14,18, Col. 5, Lines 1-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Endo et al. into Arita et al. system in order to reduce size (See Col. 5, Lines 61-67).

Allowable Subject Matter

7. Claims 7,9-12,15-17,19-20,26,30-32,34-35 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claims 7,26 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that pointing device further comprising a protrusion formed at a portion facing said switch on said elastic member, wherein said protrusion is provided for depressing said switch.

Relative to claim 9 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that elastic member and said magnet are glued at only a center of said magnet.

Relative to claim 10 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that said elastic member has a hollow that is made in such a manner that a portion where said magnet is placed and its neighborhood are made thinner than a remaining portion where said magnet is not placed.

Relative to claim 11 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that elastic member comprises at least one projection toward said printed circuit board in said hollow.

Claim 12 depends on claim 11.

Relative to claims 15,30 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that bend

includes a U grooved undercut.

Relative to claims 16,31 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that said U grooved undercut has a depth less than a thickness of said elastic member.

Relative to claims 17,32 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that said bend of said elastic member has a chamfer or rounding.

Relative to claims 19,34 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that said second elastic member includes a second hollow to enable said manipulation member to be swayed in any desired direction; and said second magnet is mounted on said second hollow side.

Relative to claims 20,35 the major difference between the teaching of the prior art of record (Arita et al. and Endo et al.) and the instant invention is that a hold-down member mounted on an edge of said elastic member or on said pushing member; a manipulation member whose movement is restrained by said hold-down member; and a second magnet mounted on said manipulation member.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

Art Unit: 2629

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
09.25.06



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600